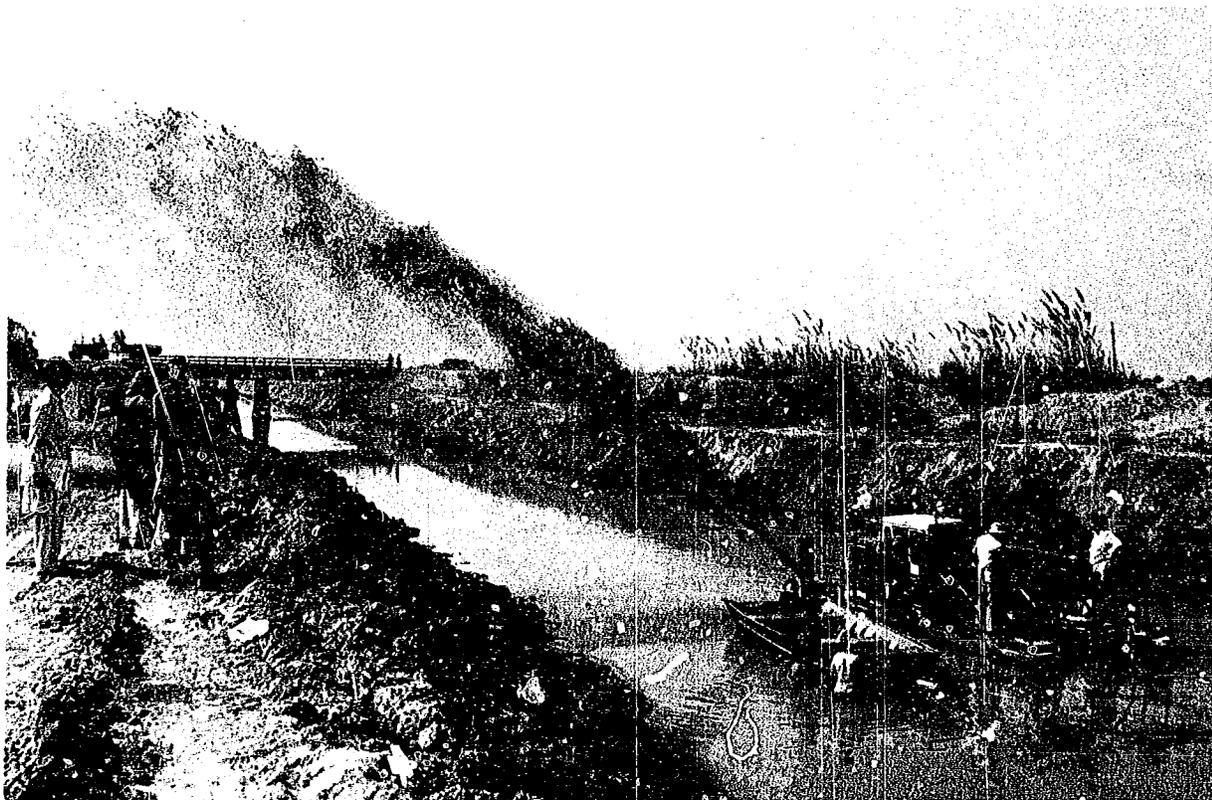


PD ARM-076

Program in Support of Agriculture and Rural Development



USAID Mission to PAKISTAN

Program in Support of
**Agriculture and
Rural Development**

USAID Mission to PAKISTAN
January, 1992

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INTRODUCTION

A major challenge over the next decade will be increasing agricultural production to keep pace with growing populations. Since independence, Pakistan has expanded food production by expanding production onto new land and extending irrigation. Similar opportunities in the future are limited--productivity gains will, therefore, depend on improved agricultural technologies and practices, as well as government policies which provide incentives to farmers, agricultural suppliers, processors, distributors, and exporters. The challenge ahead is critical.

The United States Agency for International Development (USAID) supports the Government of Pakistan's strategy of increasing agricultural productivity to contribute to sustained national economic growth. Total planned investment in

agriculture and rural development between 1982-1994 is \$1.1 billion. The United States Government is proud to be part of this long standing critical effort on the part of the Government of Pakistan to improve the incomes and well-being of rural Pakistan.

The programs and projects described in this booklet are being implemented by the Government of Pakistan with support from USAID in an attempt to increase the contribution that Pakistan's substantial agricultural and rural populations can make to the economic growth of the country.

James Norris
Director,
United States Agency for
International Development
Mission to Pakistan



James Norris, Mission Director, presenting certificates at graduation of Sind in-country training program, Institute of Business Administration.

Organizational Chart Agriculture and Rural Development

Chief

Arnold J. Radi

Deputy Chief
John B. Swanson

Environmental Unit

Ch. Laiq Ali

Training Unit

Yasmin Z. Karim

**Agriculture Sustainability
Production and Policy
Division**

Div. Chief *Dennis J. Weller*

FPD *Khawaja Hamidullah*

TIPAN *Abdul Zayyum Khan*

MART *Ronald S. Senykoff*
Catherine Norris

ASSP *Mohammad Saad Khan*
Takir Hussain
Gary Ender
Falil Ahmad

Akhatar Mahmood
Ahmad Jameel

ACE *Abdul Wasay*

**Water Resources
Division**

Div. Chief *Jan P. Emmert*

ISM *Muzammil H. Zureshi*

M. K. Chaudhry

Institutional
Dev. and Rehab. *Shamim Alam*
Mohammad Naseem

Farrukh Yousaf

Research *Falil U. Ahmad*

Command Water
Management *Asif Mahmood*
Tahid Saad Khan

Fariq Mahmood

**Rural Development
Division**

Div. Chief *Frank R. Pavich*

Deputy Chief * *John W. Tucker*

Policy Advisor * *Fariq Durani*

Program and
Narcotics Manager *Christine Sheckler*

Program *M. Arif Bhattar*

Specialists *Shaffar Mohmand*

NWFADP * *Sohail Malik*

TADP * *Iflikhar Hussain*

* Located in Peshawar

AGRICULTURE AND RURAL DEVELOPMENT PROGRAM AND PROJECT ACCOMPLISHMENTS: 1982-1991

- ▶ USAID-supported policy reforms include the replacement of interest-free farm loans with 8% loans; increase in fertilizer retail prices by 10%; increase in the differential between wheat procurement and sales price; and elimination of the ration shop and import tariffs on animal feed.
- ▶ Self-sufficiency in wheat attained, seven out of ten years, as a result of improved wheat varieties.
- ▶ Eradication of poppy production in Pakistan's major poppy production area, Gadoon-Amazai, in conjunction with the Government of Pakistan (GOP).
- ▶ National Agribusiness Action Plan developed and presented to the GOP by USAID; implementation of the plan is underway by the Ministry of Food, Agriculture and Cooperatives' Agribusiness Cell, in conjunction with USAID.
- ▶ Horticultural export capability demonstrated--production and exportation of mangos, asparagus and strawberries increased due to technical assistance and training.
- ▶ NWFP Annual Development Plan computerized.
- ▶ Private sector product development and marketing of poultry disease vaccines and zero tillage drills, as a result of NARC research.
- ▶ Private and public sector Pakistanis trained in agriculture-related fields; nearly 10,000 Pakistanis trained in-country and another 1,200 trained overseas.
- ▶ Management and maintenance of Pakistan's irrigation system improved--canals, drains and barrage gates rehabilitated.
- ▶ Commodities, equipment and wheat imported to meet production shortfalls and provide balance of payments support to the GOP.
- ▶ USAID-organized Forestry Policy Seminar recommendations incorporated into the Asian Development Bank's Master Forestry Plan for Pakistan.
- ▶ On-farm tree production network established.
- ▶ NWFP Agricultural University construction 60% completed--Farming Systems Research is linking the university and its merged research capability with the NWFP's agricultural extension system.
- ▶ NWFP and Balochistan Province residents' living standards improved and access to services and markets increased.

SUMMARY OF AGRICULTURE AND RURAL DEVELOPMENT SECTOR PORTFOLIO 1982-1994

<i>Programs & Projects</i>	<i>Total Project/Program Cost in US\$ (Millions)</i>	<i>Life of Project</i>
IRRIGATION SYSTEMS MANAGEMENT PROJECT (ISM) 391-0467	123.4	1983-1993
AGRICULTURAL COMMODITY & EQUIPMENT PROGRAM (ACE) 391-0468	559.5	1982-1992
TRIBAL AREAS DEVELOPMENT PROJECT (TADP) 391-0471	27.0	1982-1994
BALUCHISTAN AREA DEVELOPMENT PROJECT (BALAD) 391-0479	33.5	1984-1991
FORESTRY PLANNING AND DEVELOPMENT PROJECT (FPD) 391-0481	27.5	1983-1993
NORTHWEST FRONTIER AREA DEVELOPMENT PROJECT (NWFADP) 391-0485	54.9	1983-1993
Gadoon Amazai	(38.3)	
Kala Dhaka	(4.9)	
Grant to UNDCP	(10.0)	
DAPRC	(1.7)	
TRANSFORMATION & INTEGRATION OF THE PROVINCIAL AGRICULTURAL NETWORK PROJECT (TIPAN) 391-0488	55.5	1984-1994
MANAGEMENT OF AGRICULTURAL RESEARCH & TECHNOLOGY PROJECT (MART) 391-0489	33.0	1984-1994
AGRICULTURAL SECTOR SUPPORT PROGRAM (ASSP) 391-0492	211.0	1987-1994
Commodity Import Program	(85.0)	
Sector Grants	(80.0)	
Training & Technical Asst.	(46.0)	
TOTAL	1,125.3	

AGRICULTURE AND RURAL DEVELOPMENT IMPLEMENTING AGENCIES & CONTRACTORS

<i>PROJECT NAME</i>	<i>MAJOR IMPLEMENTING AGENCIES</i>	<i>USAID CONTRACTORS</i>
Irrigation Systems Management Project (ISM)	Ministry of Water & Power; Ministry of Science & Technology; Provincial Irrigation Departments; On-Farm Water Management Depts.; WAPDA Research Agencies; Pakistan Council for Research on Water Resources; Drainage & Reclamation Inst. of Pakistan; Pakistan Agricultural Research Council (PARC).	Harza Engineering Co. (TA); Development Alternatives Int'l (TA); Associated Consulting Engineers (TA); Int'l. Irrigation Management Inst. (Research).
Agricultural Commodities and Equipment Program (ACE)	Ministry of Food, Agriculture and Cooperatives; Ministry of Finance & Economic Affairs.	
Tribal Areas Development Project (TADP)	Federally Administered Tribal Agency (FATA)-Dev. Corp.; FATA-Ag. Department; FATA-Ed. Department; States & Frontier Regions Division; NWFP Planning & Dev. Department; Communication & Works.	Winrock, Int'l. (TA for Sarhad Rural Support Corp. grant which accounts for only 7% of project funding).
Balochistan Area Development Project (BALAD)	Balochistan Planning & Development Department; Ministry of Water & Power.	Louis Berger, Inc. (TA).
Forestry Planning and Development Project (FPD)	MINFAC's Inspector General of Forests; Pakistan Forest Institute; Provincial Forestry Departments.	Winrock, Int'l. (TA).
Northwest Frontier Area Development Project (NWFADP)	NWFP Planning & Development Department (Special Dev. and Project Coordinating Units); Ministry of Narcotics Control; Drug Abuse Prevention Resource Center.	Development Alternatives, Int'l. (TA for Kala Dhaka); United Nations Drug Control and Prevention (TA for Dir).

Transformation & Integration of the Provincial Agricultural Network Project (TIPAN)	NWFP Agricultural University; University Grants Commission.	University of Illinois, in collaboration with S.Ill. University (TA); Skidmore, Owings & Merrill (A&E); Encorp Amca Int'l. (Const.).
Management of Agricultural Research & Technology Project (MART)	Pakistan Agricultural Research Council (PARC); Provincial Agricultural Universities.	Winrock, Int'l. (TA); Board of Science and Technology for Int'l. Dev. (Research); Int'l. Center of Agriculture in Dryland Areas (Research).
Agricultural Sector Support Program (ASSP)	Ministry of Finance & Economic Affairs; Ministry of Food, Agriculture & Cooperatives.	Chemonics (Econ. Analysis); Int'l. Executive Service Corps (TA); Int'l. Food Policy, Res. Inst. (Research); Kansas State Univ./Food and Feed Grain Inst. (Grain Storage); Ronco Consulting Corporation (Agribusiness); SRD Consulting (Horticultural Export); U.S. Dept. of Ag. (Ag Data Collection).

USAID SUPPORT FOR AGRICULTURAL DEVELOPMENT IN PAKISTAN

Agriculture's role in the economic growth of Pakistan is vital. It accounts for approximately half of Pakistan's gross development product, 70% of its employment, 55% of its industry, and 60% of its exports. Its four major crops, wheat, cotton, rice and sugarcane account for half of the country's agricultural production--food processing and cotton textiles represent over one third of its manufacturing.

USAID supports the Government of Pakistan's (GOP) goal of increasing

agricultural productivity and economic growth through nine Agriculture and Rural Development (ARD) programs and projects. Major objectives of the ARD portfolio include an improved policy environment, private sector promotion, sustained agricultural production, more efficient use and conservation of resources, strengthened institutions, and training. Ways in which ARD's three divisions and its Training and Environmental Units accomplish its objectives are discussed in the pages that follow.

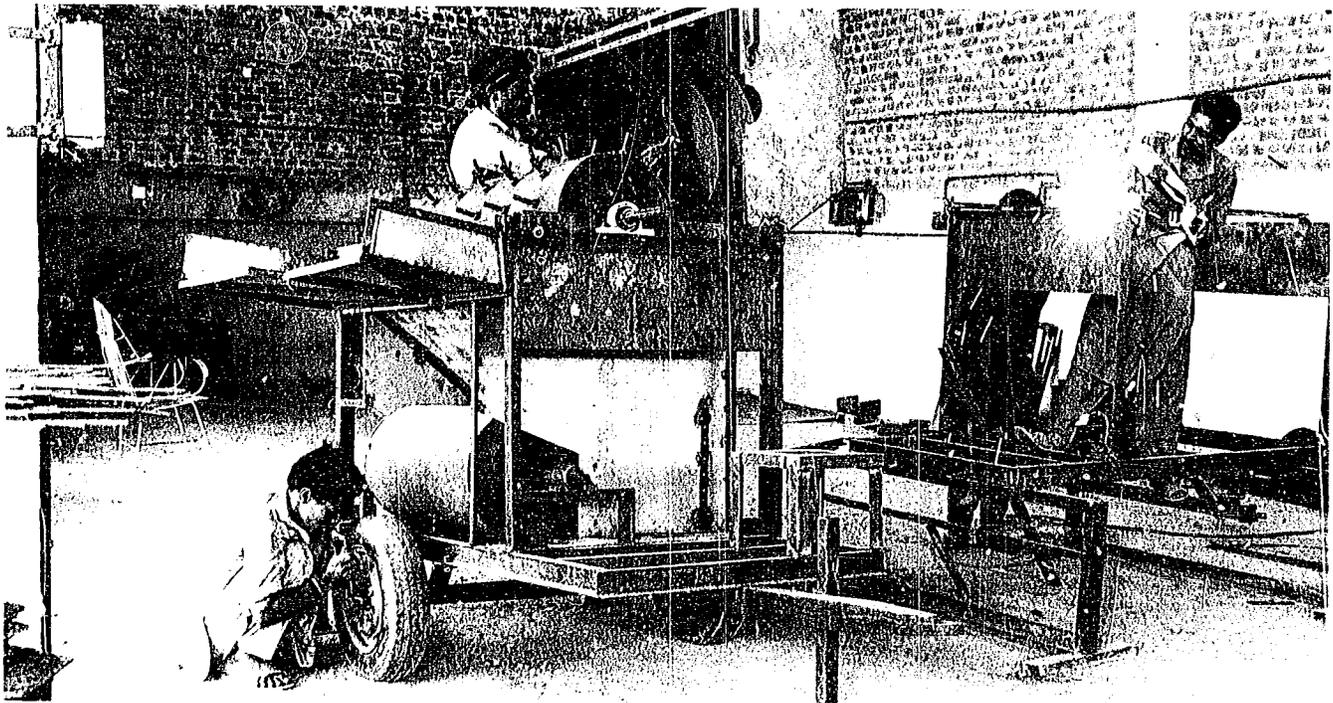


Wheat harvesting--Pakistan is self-sufficient in wheat production, seven out of ten years, as a result of policy reforms, research and technical assistance.

AGRICULTURAL SUSTAINABILITY, POLICY AND PRODUCTION PROJECTS

Rapid and equitable agricultural development requires economic policies which provide incentives to farmers, agribusinesses and the private sector. Policy initiatives are an integral part of all Agriculture and Rural Development (ARD) projects, including forestry, production, irrigation, research and agricultural marketing. Among other things, policy dialogue with the GOP is designed to

urgent and global. To carry this further, USAID-supported conferences pertaining to the future sustainability of agriculture in each province have been conducted and an innovative, pilot, environmental docu-drama film is in the making. A national conference is being planned to identify steps to support sustainable agriculture and natural resource conservation in Pakistan over the next decade.



encourage market oriented policy reform and expand private sector participation. Increased private sector investment in agriculture leads to agricultural growth and a more efficient system.

Economic development on a "sustainable" basis is dependent on the long-term management of Pakistan's natural resource base. Land resources are finite. Enormous stresses are being placed upon Pakistan's natural resources and the evolving crisis is

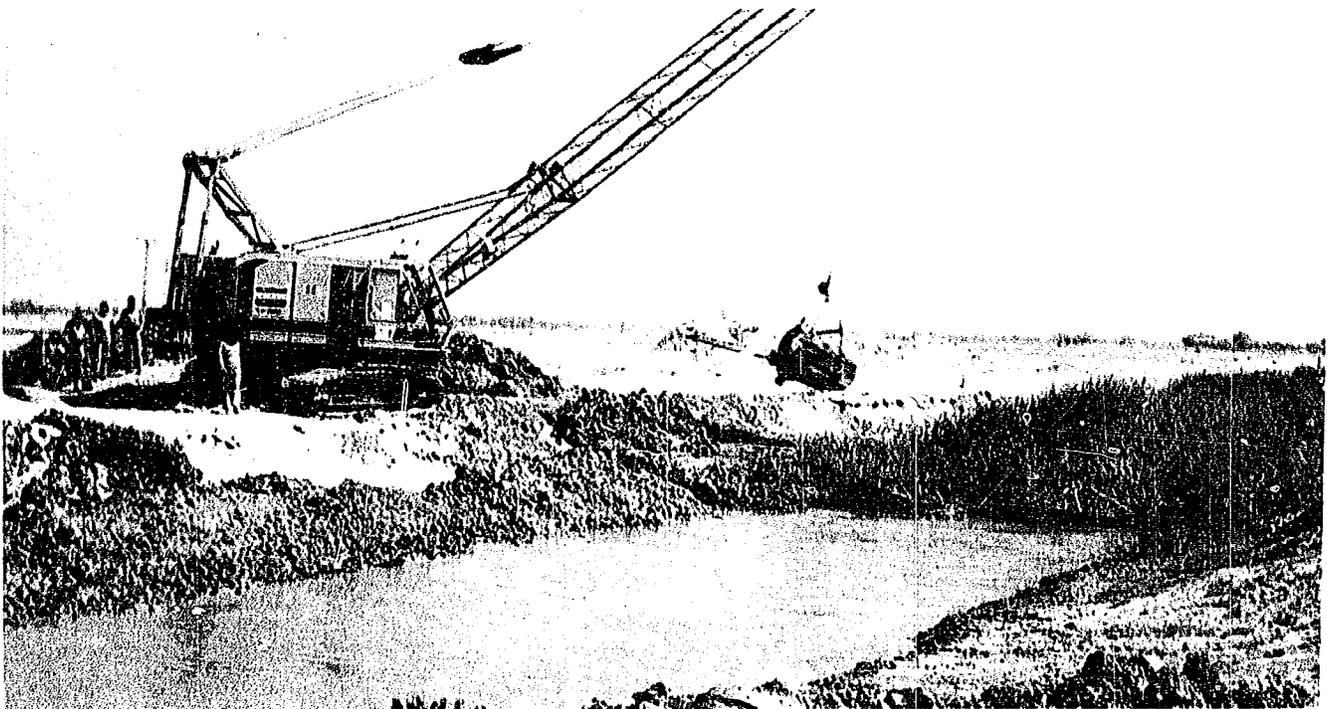
Development of peanut thrashers as a result of PARC and private sector collaboration.

Improving the use of agricultural inputs, research, management and technology contributes to increased agricultural outputs. ARD projects also help local institutions by supporting management improvements, the development of new technologies, and in some cases, construction of needed physical plants.

WATER RESOURCES PROJECTS

Improvement of the performance and condition of Pakistan's enormous irrigation system, the single most important contributor to agricultural productivity in Pakistan, is vital to agricultural growth. USAID's

initiative in the water sector focuses on rehabilitating deteriorated irrigation systems and improving their management, with the overall goal of improving the equity and reliability of water delivery to farmers.



USAID-funded dragline excavating silted bed of irrigation drain.

RURAL DEVELOPMENT PROJECTS

Resources and infrastructure are provided to residents in remote areas of the country to increase rural incomes, and in some cases, to reduce narcotics production. Employment and economic opportunities are improved with the aim of integrating residents into the mainstream of Pakistan's economy. Today's projects emphasize completing initiated development activities for maximized impact, institutionalizing one government organization to coordinate the management of development activities, and mobilizing beneficiary participation in the development process.

USAID is providing training, technical assistance and computer equipment to the Government of the Northwest Frontier Province (GONWFP) to strengthen its capability to plan and implement development projects. The overall objective is to leave a self-sufficient system in place which is capable of continuing the flow of benefits to area residents. Institutionalization of the GONWFP's Planning and Development Department (P&D) to assume this leadership role is a priority of all rural development projects.

TRAINING AND ENVIRONMENTAL UNITS

Approximately seventy percent of Pakistan's population is employed in the agricultural sector--agricultural production, processing, distribution and marketing. Vital to the economic growth of the country, strengthened manpower is an objective of all ARD projects. Long and short term training, overseas and in Pakistan, is funded by ARD projects to improve the management, research, educational and technical capabilities of Pakistanis in the agricultural sector. Between 1982 and 1991 ARD projects trained approximately eleven thousand Pakistanis--of these, 9,800 were trained in-country, and 1,200 were trained overseas.

To promote training activities across a diversified ARD portfolio, the Training Unit determines training policy and provides

program-funded private sector scholarships to as many as seventy selected agribusiness students annually. Initiated in 1986, the Agricultural Sector Support Program (ASSP) trained over 100 degree participants and approximately 113 participants from the private sector, in non-degree marketing, production and technology courses.

To address environmental issues and conserve Pakistan's natural resource base, The ARD Environmental Unit conducts environmental impact assessments for all Mission projects. It determines how impacts can or cannot be mitigated during the life of the project and ensures that projects meet environmental requirements, as a prerequisite to their approval and funding by USAID.



Agricultural Sustainability Conference participants discussing environmental issues in Faisalabad.

AGRICULTURAL SUSTAINABILITY, POLICY AND PRODUCTION PROJECTS AND PROGRAMS

Agricultural Commodities and Equipment Program (ACE)

(391-0468) FY 82--FY 92

Total Program Cost \$559.5 Million

AID Contact Person: Abdul Wasay

Procurement of commodities and equipment for the private and public sectors provides balance of payments support to the GOP. This supports policy dialogue and technical assistance efforts with the aim of increasing agricultural productivity. The program will be completed in April 1992 with procurement of commodities being completed under outstanding Letters of Credit.

PROGRAM ACCOMPLISHMENTS

▶ Wheat and cotton imported to meet

demand, following production shortfalls;

- ▶ Computers (120) purchased and installed at the University of Agriculture, Faisalabad, and research institutes for research, educational and administrative applications;
- ▶ Fertilizer imported in five tranches;
- ▶ Private and public sectors supported through the importation of machinery, earthmovers and research equipment.



Equipment is imported through the ACE Program to rehabilitate irrigation systems.

Agricultural Sector Support Program (ASSP)

(391-0492) FY 87--FY 94

Total Program Cost \$211 Million

AID Contact Person: Dennis Weller

Policy reform and increased private sector participation in agriculture are promoted by the ASSP to strengthen the GOP's long-term ability to manage a market-based agricultural sector and to assist in agricultural policy analysis and food security.

As an umbrella follow-on to the successful Food Security Management Project (\$34.5 million) and the Agricultural Commodities and Equipment Program (\$559.5 million), the ASSP supports the Government of Pakistan's (GOP) policy reform program aimed at reducing agricultural subsidies, rationalizing agricultural prices, and reducing government competition and regulation of the private sector.

Training and technical assistance are provided to agribusinesses and the public sector to improve agriculture-related skills, to strengthen government capability to collect and analyze agricultural data, and to strengthen the management of agricultural projects.

More precise data has led to more relevant and improved analysis of data. Accurate crop forecasts and storage requirement projections result in direct savings to Pakistan by forecasting when and how much storage is required and by providing a more accurate supply and demand picture, as a basis for market prices.

Short-term private sector agribusiness training courses and in-country graduate preparatory courses are provided through the training component of the project to upgrade prospective public sector trainees' language

and academic skills.

USAID-funded studies of six key agro-industries in Pakistan led to a National Agribusiness Assessment which identifies constraints to agribusiness promotion in Pakistan. To address these constraints, USAID developed and presented a National Agribusiness Action Plan to the GOP. Ministry of Food, Agriculture and Cooperatives concurrence and implementation of the plan, in conjunction with USAID,



Technical assistance is provided to the private sector in bulk grain storage and quality control.

through its newly established Agribusiness Cell, will continue policy reform, leading to a larger role for the private sector.

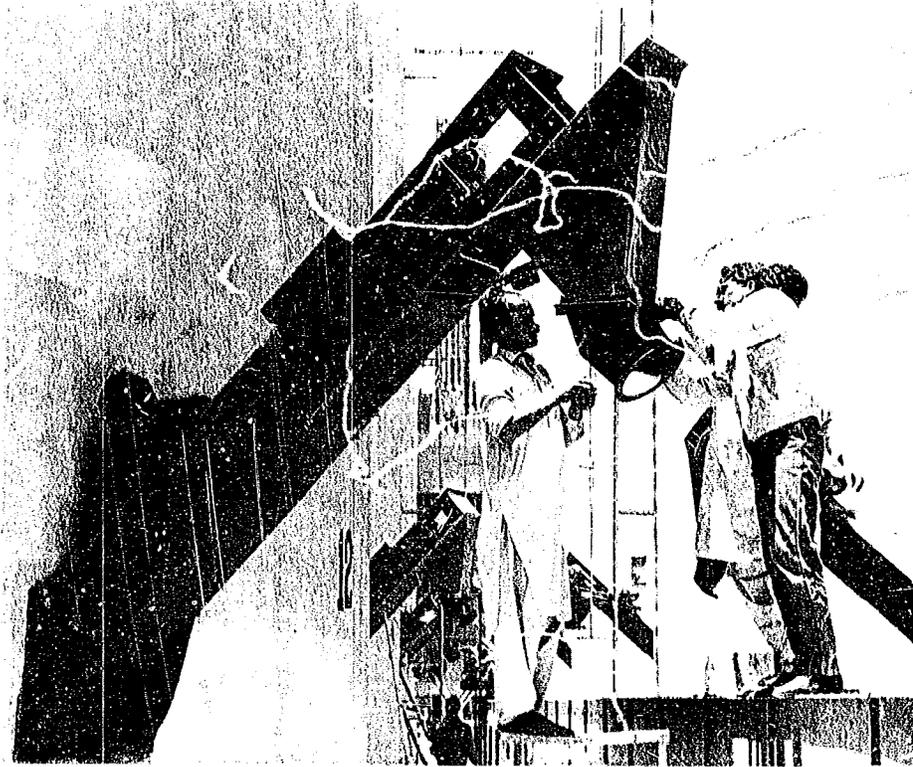
The ASSP has demonstrated the feasibility of expanding the production and exportation of horticultural crops in Pakistan--it provides technical assistance and training in horticultural crop production, handling, and storage of mangos, asparagus and strawberries to promote their exportation.

Partly as a result of policy reforms, potential investments in citrus juice processing and commercial seed and edible oil production are expected to increase dramatically.

PROGRAM ACCOMPLISHMENTS

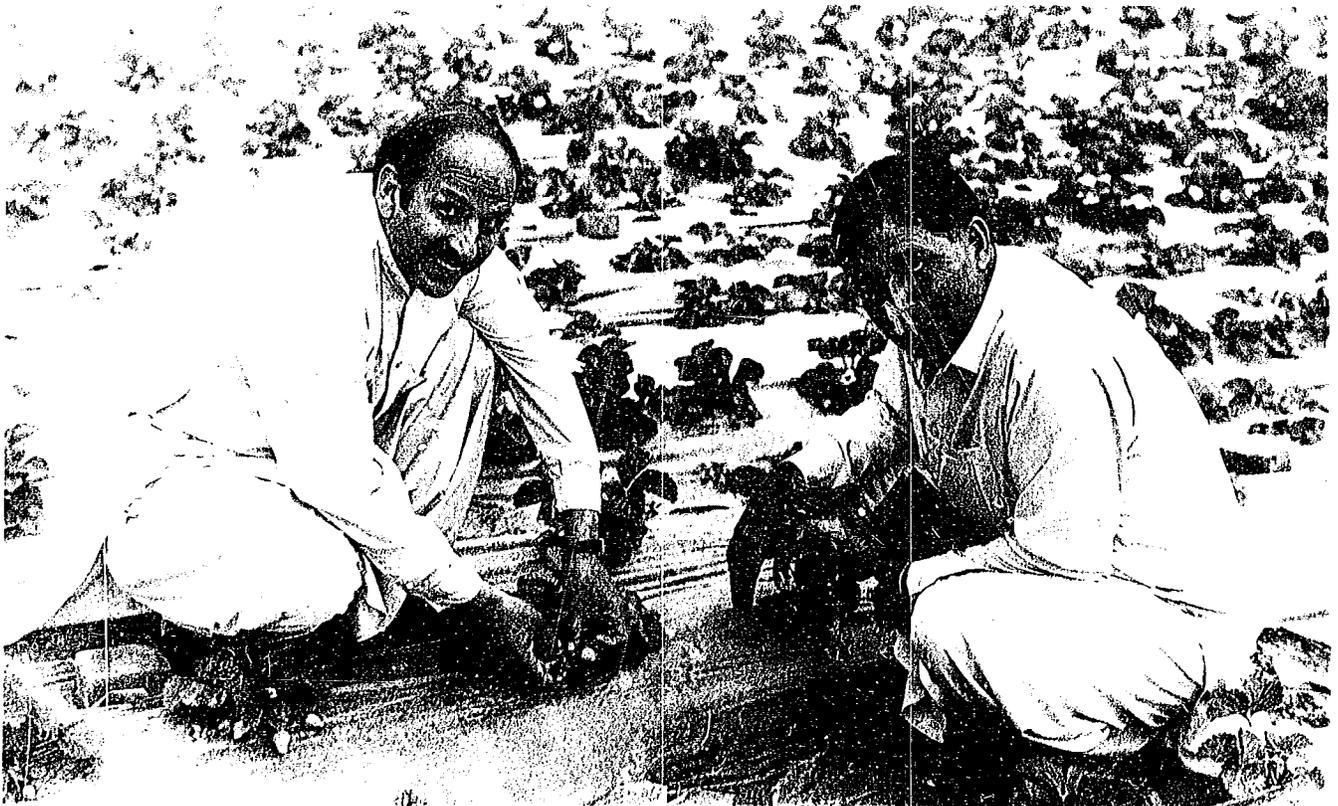
- ▶ Policy reforms include the elimination of the ration shop system; replacement of interest-free loans with 8% loans; increase in the price differential between the purchase and sales price of wheat; and increase in fertilizer prices by 10%;
- ▶ GOP implementation of National Agribusiness Action Plan initiated, in conjunction with USAID;
- ▶ Cost benefits of rehabilitating storage facilities rather than constructing new facilities demonstrated; rehabilitated facilities (575,000 ton capacity) and improved management practices reduced wheat losses by 3% annually;
- ▶ Subsidy reduction of wheat prices (a benchmark obtained through policy-dialogue) resulted in a GOP savings of \$150 million;
- ▶ Over 200 private sector participants trained since 1986; numerous private and public sector persons trained, both in long-term and short-term agriculture-related courses.

Sample plot layouts are demonstrated to determine crop yields for policy makers.



Renovation of bulk storage silos provides savings to the GOP.

AGRICULTURE POLICY AND PRODUCTION



Private sector-oriented agricultural policies have resulted in increased investment in high-value horticultural crops.

Forestry Planning and Development Project (FPD)

(391-0481) FY 83--FY 93

Total Project Cost \$27.5 Million

AID Contact Person: K. Hameedullah

Trees play an increasingly important role in Pakistan's economy--they supply half of the country's cooking and heating needs, provide fruit, timber, fodder, and prevent soil and water erosion.

Technical assistance and training are provided to encourage tree farming as a secondary activity on farms and to reverse the trend toward deforestation in Pakistan. Institutionalization of an on-farm tree production network is underway. Private tree nurseries are gradually developing their own

markets and recent research indicates farmers' willingness to buy seedlings for fuelwood and cash crop production, as a result of project interventions.

Environmental concerns and awareness-increasing activities of various non governmental organizations are supported by the project. One program develops and distributes environmental pollution packets for primary school usage, through provincial workshops.



Project forester inspecting tree nursery.



Pulpwood market

Forestry research activities are underway through the Pakistan Forest Institute, NARC and the Agricultural Universities. Pakistani men and women are being trained at the Pakistan Forest Institute with 25% of future training slots reserved for women.

PROJECT ACCOMPLISHMENTS

- ▶ USAID-organized Forestry Policy Seminar recommendations are being incorporated into the Asian Development Bank's Master Forestry Plan for Pakistan;
- ▶ On-farm tree production network established; farmer and end-user linkages facilitate marketing and promote demand;
- ▶ Increased farm production of wood to meet industrial demand for cricket bats and hockey sticks, formerly imported from England, saves foreign exchange;
- ▶ MS and BS students trained and office buildings and hostels constructed at the Pakistan Forest Institute;
- ▶ Employment provided to Tarbela Watershed residents and interest in tree cropping generated;
- ▶ Saline land reclaimed by use of tree belts to lower water table.



Farm wood lot.

The Management of Agricultural Research and Technology Project (MART)

(391-0489) FY 84--FY 94

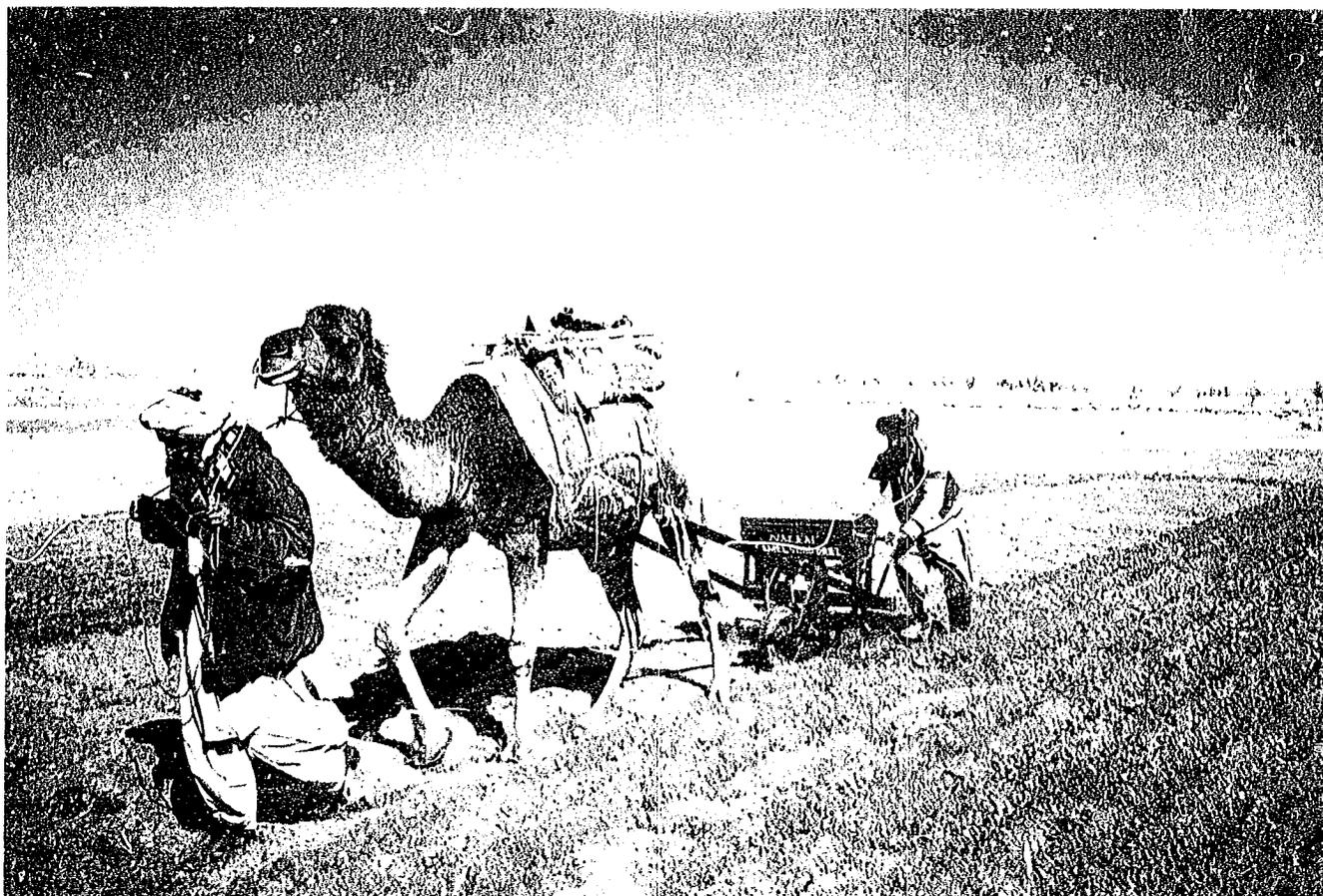
Total Project Cost \$33 Million

AID Contact Person: Ronald Senykoff

With agriculture employing nearly 70% of Pakistan's labor force, research has played a major role in propelling the agricultural economy, and in turn, the entire economy to impressive growth rates throughout the 1970s and 1980s. Investments in agricultural research have historically proven to be a low-cost source of agricultural growth in Pakistan--varietal improvements in wheat, cotton and rice have yielded exceptionally high rates of return.

The MART Project, USAID's capstone to its

long and productive assistance to agricultural research in Pakistan (it built the National Agriculture Research Center and trained many of its scientists), is strengthening the national agricultural research network through a three pronged approach. Management deficiencies are addressed and linkages between national, provincial and international research institutes are strengthened. Technology packages are developed and disseminated to farmers and agribusinesses, and Pakistani scientists and researchers are trained.

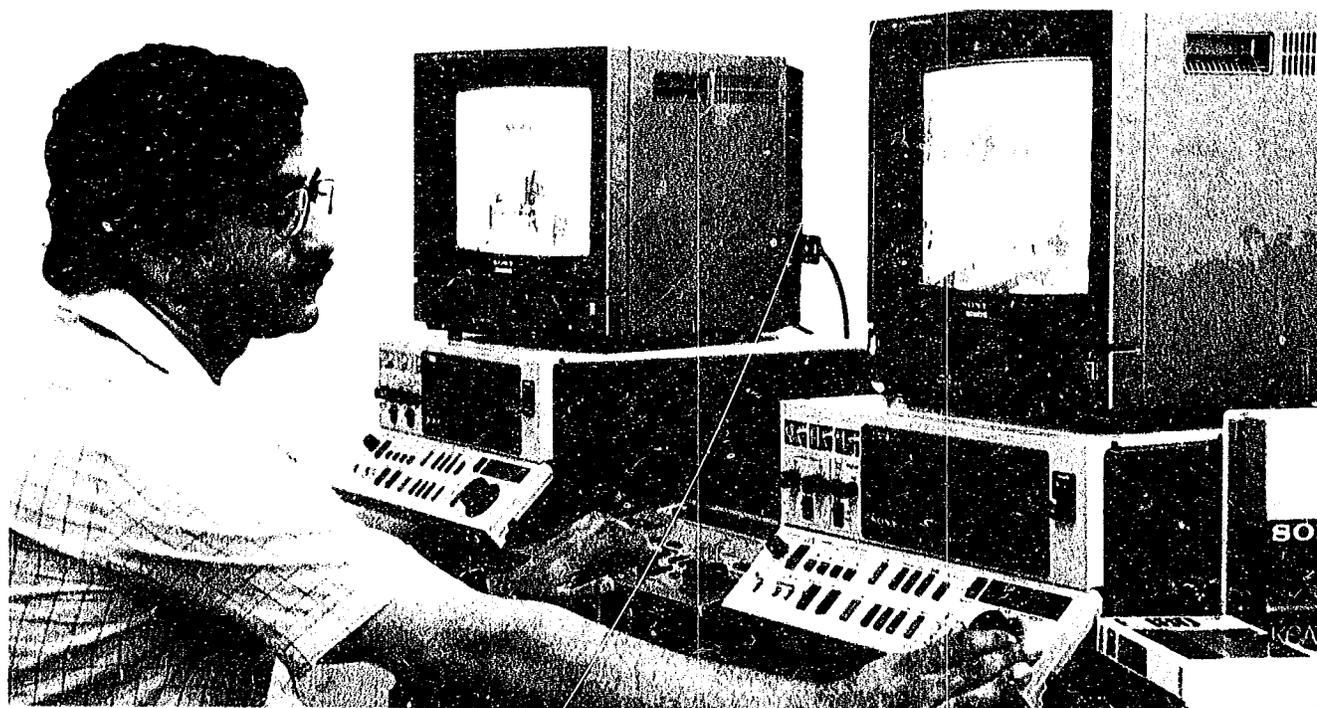


Recently introduced camel-driven seeder increases germination and reduces seed costs in Balochistan.

Private sector involvement in agribusiness, a central policy reform of USAID, is promoted through collaborative research agreements between the National Agricultural Research Center (NARC) and Pakistani agribusinesses and manufacturers. Several recent

Pakistani manufacturers, as a result of NARC research:

- ▶ Self-sufficiency in wheat production attained, seven out of ten years, as a result of the introduction of



NARC Communication Cell packages technologies for dissemination to farmers.

agreements have resulted in product development to meet agricultural needs--additional agreements are being initiated. Private sector research is promoted by an USAID grantee which provides sub-grants to Pakistani scientists for stressed land research.

Farming Systems Research, a successful, multi-disciplinary approach to agricultural research in Pakistan, is established and being institutionalized at the national and provincial levels.

PROJECT ACCOMPLISHMENTS

- ▶ Product development and marketing of peanut thrashers, poultry disease vaccines and zero tillage drills by

high-yielding, disease-resistant wheat varieties;

- ▶ Management of the National Agricultural Research network improved;
- ▶ Institutionalization of Farming Systems Research, focusing on farmer-oriented problems, is underway;
- ▶ New germplasm developed and introduced, enabling scientists to research high-yielding, disease-resistant plant varieties;
- ▶ NARC Communication Cells established to package and disseminate agricultural technologies.

Transformation and Integration of the Provincial Agricultural Network Project (TIPAN)

(391-0488) FY 84--FY 94

Total Project Cost \$55.5 Million

AID Contact Person: Abdul Qayyum Khan

To support its successful investments in agricultural education and to create a dynamic, problem-solving center of teaching, research, and outreach, the TIPAN Project is making improvements at the NWFP Agricultural University in Peshawar. This will serve as a major catalyst for agricultural development in the Northwest Frontier Province (NWFP), and in so doing, will attempt to address a problem inherent to many countries; that is, integration of agricultural research with agricultural education at the university level.

The university curriculum is being upgraded along with reorganization of faculty and

administration to improve teaching, research and outreach activities. Approximately sixty percent of the \$20 million university construction project for a plant science building, library, student/faculty center and experimental farm is completed.

A farmer-oriented outreach program (Farming Systems Research), linking the Agricultural University and its merged research capability with the NWFP's agricultural extension system, has been designed to strengthen operational linkages, train outreach personnel and develop media programs for extending knowledge to extension personnel and farmers.



Construction activities at the NWFP Agricultural University, Peshawar, include a student center, library and plant science buildings.



US-AID engineer, Yusaf Said (center), discusses NWFAP Agricultural University construction plans with Mission Deputy Director, Nancy Tumavick, Project Officer, Abdul Qayyum (left) and Agriculture Division Chief, Dennis Weller.

More than seventy NWFAP Agricultural University faculty members and research scientists have received postgraduate training in the United States and, at any given time, approximately sixty faculty and staff are enrolled in degree programs. Current university leaders are increasing efforts to extend educational opportunities for women. Employment of women in research, teaching, and outreach at the university and in the government is likewise supported.

PROJECT ACCOMPLISHMENTS

- ▶ Twenty two building university construction project 60% complete;
- ▶ Outreach services provided to farmers utilizing Farming Systems Research;
- ▶ Educators and researchers received graduate degrees and management training;
- ▶ Provincial research stations computerized and strengthened;
- ▶ Plans developed for administrative and financial restructuring.

Irrigation Systems Management Project (ISM)

(391-0467) FY 83--FY 93

Total Project Cost \$123.4 Million

AID Contact Persons:

Institutional Development and Rehabilitation Sub-project:

**Jan Emmert, Muzammil H. Qureshi, M.K. Chaudhry,
Shamim Alam, Farrukh Youssef and Mohammad Naseem;**

Research Sub-project:

Jalil-U-Ahmed and Ali Khan

Command Water Management Sub-project:

Zahid Saeed Khan, Asif Mahmood and Tariq Mahmood

Irrigation, the major contributor to Pakistan's agricultural productivity, accounts for nearly ninety percent of the country's major crops. Maintenance of the deteriorating system is critical to continued agricultural growth. The Irrigation Systems Management Project improves the performance and condition of the world's largest contiguous irrigation system through its Institutional Development and Rehabilitation Sub-project.

In conjunction with the World Bank, this sub-project is repairing deteriorated portions of canals, drains and barrage gates and is helping to improve overall water management skills at both the federal and provincial levels. Officials receive management training while information systems are being established to monitor performance and generate information needed to make decisions.

Policy reforms promoted by the project include increased government funding and increased water user charges to ensure

sufficient funding to maintain irrigation systems.

The Research sub-project consists of a multi-donor grant to the International Irrigation Management Institute (IIMI) for institutionalization of field oriented research, focusing on demand irrigation. Pakistani research organizations are provided sub-grants to conduct research in water management practices and methods of combating waterlogging and salinity problems at the farm level.

At the user end of the system, the recently completed Command Water Management sub-project, strengthened water user associations, trained farmers in the optimal use of water for crops, and lined over 1,200 kilometers of farmer-managed watercourses. The formation of water user associations was encouraged as a way of increasing farmers' decision-making in the management, maintenance and repair of their irrigation systems.



Watercourse lining and canal rehabilitation improves water delivery to farmers.

USAID PROJECT ACCOMPLISHMENTS

- ▶ Watercourses lined--irrigation canals, drains and barrage gates rehabilitated;
- ▶ Heavy machinery, equipment and computers provided to irrigation agencies to rehabilitate and maintain irrigation systems and improve their management;
- ▶ Information centers, training units and computer cells established at Provincial Irrigation Departments (PIDs) to improve management and training capabilities.

RURAL DEVELOPMENT PROJECTS

Tribal Areas Development Project (TADP)

(391-0471) FY 82--FY 94

Current Project Cost \$27 Million
AID Contact Person: Iftikar Hussain

This project was the first attempt by any donor to promote development in the Tribal Areas, demonstrating that development projects can be successful despite harsh, difficult and isolated environments. Sustaining the momentum and improved living standards attained by the Tribal Area Development Project is crucial as USAID technical and planning support decreases. The challenge is to leave a self-sufficient system in place which is capable of continuing the flow of benefits to beneficiaries.

Institutionalization of one agency within the Planning and Development Department (P&D) of the Government of the Northwest Frontier Province (GONWFP) to coordinate and implement Tribal Area development activities, is being accomplished in several ways.

Project-funded socio-economic profiles of Kurram, North Waziristan and South Waziristan provide data to be used for rational project selection and more equitable service delivery.



Testwell in Orakzai Agency being tested for discharge.



High value horticultural crops, promoted by Rural Development projects, increase family incomes.

The provision of computers and staff training is strengthening development-oriented line agency and the P&D's capability to plan and manage development activities. TADP assistance resulted in the computerization of the GONWFP's annual development plan, the first province to accomplish this.

Sustained community development requires beneficiary desire for interventions and willingness to maintain activities by providing time and resources for their support and maintenance. Strategies are evolving to mobilize beneficiary participation and to prepare communities to continue activities with less support from line agencies and donors.

A participatory approach to development, established by the Aga Khan Rural Support Program, is being utilized by the TADP-funded Sarhad Rural Support Corporation in Kohat and Charsada Districts. Villagers form Village Organizations which serve as the focal point for the identification, funding and implementation of community activities.

- ▶ Kohat and Charsada District residents mobilized to establish participatory Village Organizations;
- ▶ Construction of project-funded roads increased access of area residents.

Technical and financial assistance is provided to Village Organizations to support implementation of project activities.

PROJECT ACCOMPLISHMENTS

- ▶ Computerization of the GONWFP Annual Development Plan; computer equipment and training provided to four line agencies to accomplish this;
- ▶ Socio-economic profiles completed for three Tribal Agencies--data provides information for decision-making and rational planning;
- ▶ Rural development infrastructure projects completed (irrigation and water systems, schools and clinics);

Northwest Frontier Area Development Project (NWFADP)

(391-0485) FY 83--FY 93

Current Project Cost \$54.9 Million

AID Contact Person: Sohail M. Malik

The Northwest Frontier Area Development Project serves as USAID's umbrella project for Pakistan's narcotics reduction and crop substitution goals. Initiated in 1983 to target Pakistan's major poppy production area, Gadoon-Amazai, infrastructure development, agro-forestry and off-farm employment and training are provided to area residents as the GOP continues its poppy enforcement. These efforts helped the GOP eradicate poppy production, increase wheat and corn yields, and convert the Gadoon Amazai poppy-based economy into a diversified farming system, similar to the adjoining irrigated areas of Swabi.

Construction of roads, small infrastructure schemes, irrigation systems and the introduction of high value cash crops increases access to isolated villages, provides new windows of opportunity, and improves the living standards of area residents. Alternative income and off-farm employment activities, including the Gadoon-Amazai Industrial Estate, resulted in the employment of residents and the establishment of non-formal female education centers.

Strategies are evolving to increase beneficiary participation in the selection and maintenance of community development



Rapeseed substitutes for poppies in Gadoon Amazai, NWFP.



NWFP women are trained in poultry production as an income generating activity.

activities and to strengthen the Government of Northwest Frontier Province's (GONWFP) capability to plan and implement development activities toward a sustained rural development system.

Due to the success of the Gadoon-Amazai project in eradicating poppy production, project interventions are extended to the United Nations multi-donor narcotics project (\$5 million), targeting Dir and Buner, and a neighboring area of Kala Daka (\$4.9 million), while the government continues to enforce its poppy ban.

USAID support of the National Drug Abuse Prevention Resource Center (DAPRC), Islamabad, (\$1.7 million), established by the Pakistan Narcotics Control Board (PNCB), provides a demand reduction approach to the narcotics problem in Pakistan.

PROJECT ACCOMPLISHMENTS

- ▶ Elimination of poppy production (8-10 thousand acres) in Gadoon Amazai, as a result of GOP poppy reduction enforcement and project interventions;
- ▶ Road construction and maintenance improved access of residents to services, markets and employment;
- ▶ NWFP residents employed and trained through the project;
- ▶ Rural development schemes completed (village electrification, industrial estate infrastructure, irrigation and water systems, schools, clinics, and forestry plots).

Balochistan Area Development Project (BALAD)

(391-0479) FY 84--FY 91

Total AID Cost \$33.5 Million

AID Contact Person: Karim Nayani

To maximize gains achieved in Balochistan Province, efforts are underway to complete initiated development activities and to sustain the flow of benefits to Makrani residents, as the project approaches its completion date. Key to this is the institutionalization of the Makran Project Planning and Monitoring Unit (PPMU).

A study addressing institutional approaches to planning in Makran is identifying strategies to accomplish this. Likewise, the provision of computers and training of government staff is improving information and management systems.

Project-funded Ketch River Bridge and approach roads are completed, providing improved access to an isolated area of one of the least developed provinces in the country. Other roads have been upgraded and maintained.

PROJECT ACCOMPLISHMENTS

- ▶ Ketch River Bridge and approach roads completed;
- ▶ Rural roads upgraded, shingled and maintained--heavy equipment provided to C&W Department for road maintenance;
- ▶ Infrastructure projects completed (schools, karezes, low-water crossings, watercourses and recharge dams);
- ▶ Makrani students trained in the U.S.



Project-funded karezes (long horizontal underground water channels) provide water for date production in Balochistan.



*Several A.I.D. activities support
small ruminant livestock production.*

*Brochure text and project summaries written by Lynne D. Lewis.
Organizational Chart and ARD Logo designed by Jamil Butt.*